9 VAC 25-720-50. Potomac - Shenandoah River Basin.

A. Total maximum daily load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/ County	WBID	Pollutant	WLA	Units
1.	Muddy Creek	Nitrate TMDL Development for Muddy Creek/Dry River, Virginia	Rockingham	B21R	Nitrate	49,389.00	LB/YR
2.	Blacks Run	TMDL Development for Blacks Run and Cooks Creek	Rockingham	B25R	Sediment	32,844.00	LB/YR
3.	Cooks Creek	TMDL Development for Blacks Run and Cooks Creek	Rockingham	B25R	Sediment	69,301.00	LB/YR
4.	Cooks Creek	TMDL Development for Blacks Run and Cooks Creek	Rockingham	B25R	Phosphorus	0	LB/YR
5.	Muddy Creek	TMDL Development for Muddy Creek and Holmans Creek, Virginia	Rockingham	B22R	Sediment	286,939.00	LB/YR
6.	Muddy Creek	TMDL Development for Muddy Creek and Holmans Creek, Virginia	Rockingham	B22R	Phosphorus	38.00	LB/YR
7.	Holmans Creek	TMDL Development for Muddy Creek and Holmans Creek, Virginia	Rockingham/ Shenandoah	B45R	Sediment	78,141.00	LB/YR
8.	Mill Creek	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B29R	Sediment	276.00	LB/YR

9.	Mill Creek	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B29R	Phosphorus	138.00	LB/YR
10.	Pleasant Run	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B27R	Sediment	0.00	LB/YR
11.	Pleasant Run	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B27R	Phosphorus	0.00	LB/YR
12.	Linville Creek	Total Maximum Load Development for Linville Creek: Bacteria and Benthic Impairments	Rockingham	B46R	Sediment	5.50	TONS/YR
13.	Quail Run	Benthic TMDL for Quail Run	Rockingham	B35R	Ammonia	7,185.00	KG/YR
14.	Quail Run	Benthic TMDL for Quail Run	Rockingham	B35R	Chlorine	27.63	KG/YR
15.	Shenandoah River	Development of Shenandoah River PCB TMDL (South Fork and Main Stem)	Warren & Clarke	B41R, B55R, B57R, B58R	PCBs	179.38	G/YR
16.	Shenandoah River	Development of Shenandoah River PCB TMDL (North Fork)	Warren & Clarke	B51R	PCBs	0.00	G/YR
17.	Shenandoah River	Development of Shenandoah River PCB TMDL (Main Stem)	Warren & Clarke	WV	PCBs	179.38	G/YR
18.	Cockran Spring	Benthic TMDL Reports for Six Impaired Stream	Augusta	B10R	Organic Solids	1,556.00	LB/YR

		Segments in the Potomac-Shenandoah and James River Basins					
19.	Lacey Spring	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Rockingham	B47R	Organic Solids	680.00	LB/YR
20.	Orndorff Spring	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Shenandoah	B52R	Organic Solids	103.00	LB/YR
21.	Toms Brook	Benthic TMDL for Toms Brook in Shenandoah County, Virginia	Shenandoah	B50R	Sediment	8.1	T/YR
22.	Goose Creek	Benthic TMDLs for the Goose Creek Watershed	Loudoun, Fauquier	A08R	Sediment	1,587	T/YR
23.	Little River	Benthic TMDLs for the Goose Creek Watershed	Loudoun	A08R	Sediment	105	T/YR
24.	Christians Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Impaired Streams in the Middle River and Upper South River Watersheds, Augusta County, VA	Augusta	B14R	Sediment	145	T/YR

25.	Moffett Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Impaired Streams in the Middle River and Upper South River Watersheds, Augusta County, VA	Augusta	B13R	Sediment	0	T/YR
26.	Upper Middle River	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Impaired Streams in the Middle River and Upper South River Watersheds, Augusta County, VA	Augusta	B10R	Sediment	1.355	T/YR
27.	Mossy Creek	Total Maxiumum Daily Load Development for Mossy Creek and Long Glade Run: Bacteria and General Standard (Benthic) Impairments	Rockingham	B19R	Sediment	0.04	T/YR
28.	Smith Creek	Total Maxiumum Daily Load (TMDL) Development for Smith Creek	Rockingham, Shenandoah	B47R	Sediment	353,867	LB/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste

load allocations.

TABLE B1 - POTOMAC RIVER SUB-BASIN RECOMMENDED SEGMENT CLASSIFICATIONS

SEGMENT NUMBER	DESCRIPTION OF SEGMENT	MILE TO MILE	CLASSIFICATION
1-23	Potomac River tributaries from the Virginia-West Virginia state line downstream to the boundary of the Dulles Area Watershed Policy	176.2 – 149.0	WQ
1-24	Potomac River tributaries located within the boundaries of the Dulles Area Watershed Policy	149.0 – 118.4	WQ
1-25	Potomac River tributaries from the downstream limit of the Dulles Area Watershed Policy to Jones Point	118.4 – 107.6	WQ
1-26	Potomac River tributaries from Jones Point downstream to Route 301 bridge	107.6 – 50.2	WQ
1-27	All Streams included in the Occoquan Watershed Policy	_____	WQ
1-28	Potomac tributaries from Route 301 bridge downstream to the mouth of the Potomac River	50.2-0.0	EL

TABLE B2 – POTOMAC RIVER SUB-BASIN - RECOMMENDED PLAN FOR WASTEWATER FACILITIES

FACILITY NUMBER	NAME	RECEIVING STREAM	RECOMMENDED ACTION	SIZE	TREATMENT LEVEL (4)	BOD_5	OUD	TKN	P	INSTITUTIONAL ARRANGEMENT
1	Hillsboro	North Fork Catoctin Creek WQ (1 –23)	Construct new facility	.043[2]	AWT	7[7]	-	-	-	Loudoun County Sanitation Authority (LCSA)
2	Middleburg	Wancopin Creek WQ (1-23)	Construct new facility; abandon old facility	.135	AST	14[5]	-	-	-	LCSA
3	Middleburg East and West	Unnamed tributary to Goose Creek WQ (1 –23)	Abandon- pump to new facility							
4	Round Hill	North Fork Goose Creek	No further action recommended	.2	AWT	10[5]	-	-	-	Town of Round Hill

5	St. Louis	Beaver Dam Creek WQ (1-23)	Construct new facility	.086	AST	20[5]	-	-	-	LSCA
6	Waterford	South Fork Catoctin Creek WQ (1-23)	No further action recommended	.058	AST	24[5]	-	-	-	LSCA
7	Hamilton	Unnamed tributary to South Fork of Catoctin Creek WQ (1-23)	Upgrade and or expand	.605[2]	AWT	7[7]	-	-	-	Town of Hamilton
8	Leesburg	Tuscarora Creek (1-24)	Upgrade and or expand	2.5	AWT	1[9]	-	1	0.1	Town of Leesburg
9	Lovettesville	Dutchman Creek WQ (1-23)	Upgrade and or expand	.269[2]	AWT	7[7]	-	-	-	Town of Lovetteville
10	Purcellville	Unnamed tributary to North Fork Goose Creek WQ (1-23)	No further action recommended	.5	AST	15[5]	-	-	-	Town of Purcellville
11	Paeonian Springs	Unnamed tributary to South Fork of Catoctin Creek WQ (1-23)	Construct new facility	.264[2]	AWT	7[7]	-	-	-	LCSA
12	Cedar Run Regional	Walnut Branch or Kettle Run WQ (1-27)	Construct new facility	1.16[2]	AWT	1[6]	-	1	0.1	Fauquier County Sanitation Authority
13	Vint Hill Farms	South Run (1-27)	Upgrade and/or expand	.246	AST	14[5]	-	-	2.5	U.S. Army

14	Arlington	Four Mile Run WQ (1-25)	Upgrade and/or expand	30[3]	AWT	3[8]	-	1	0.2	Arlington County
15	Alexandria	Hunting Creek WQ (1-26)	Upgrade and/or expand	54	AWT	3[8]	-	1	.02	Alexandria Sanitation Authority
16	Westgate	Potomac River WQ (1-26)	Abandon- pump to Alexandria							
17	Lower Potomac	Pohick Creek WQ (1-26)	Upgrade and/or expand	36(3)	AWT	3/8	-	1	0.2	Fairfax County
18	Little Hunting Creek	Little Hunting Creek WQ (1-26)	Abandon- pump to Lower Potomac							
19	Doque Creek	Doque Creek WQ (1-26)	Abandon- pump to Lower Potomac							
20	Fort Belvoir 1 and 2	Doque Creek WQ (1-26)	Abandon- pump to Lower Potomac							
21	Lorton	Mills Branch WQ (1-26)	Upgrade and/or expand	1.0	AWT	3[11]	-	1	0.1	District of Columbia
22	UOSA	Tributary to Bull Run WQ (1-27)	Expanded capacity by 5 mgd increments	10.9[3]	AWT	1[6]	-	1	0.1	USOA
23	Gainesville Haymarket	Tributary Rock Branch WQ (1-27)	Abandon Pump to UOSA							
24	Potomac (Mooney)	Neabsco Creek WQ (1-26)	Construct new facility	12[3]	AWT	3[8]	-	1	0.2	Occoquan-Woodbridge Dumfries-Triangle Sanitary District
25	Belmont	Marumsco Creek WQ (1-26)	Abandon- pump to Potomac							

26	Featherstone	Farm Creek WQ (1-26)	Abandon- pump to Potomac							
27	Neabsco	Neabsco Creek WQ (1-26)	Abandon- pump to Potomac							
28	Dumfries	Quantico Creek WQ (1-26)	Abandon- pump to Potomac							
29	Dale City #1	Neabsco Creek WQ (1-26)	Upgrade and /or expand	4.0	AWT	3[8]	-	1	0.2	Dale Service Corporation (DSC)
30	Dale City #8	Neabsco Creek WQ (1-26)	Upgrade and /or expand	2.0	AWT	3[8]	1	1	0.2	DSC
31	Quantico Mainside	Potomac River WQ (1-26)	Upgrade and /or expand	2.0	AWT	3[8]	-	1	0.2	U.S. Marine Corps
32	Aquia Creek	Austin Run WQ (1-26)	Construct new facility	3.0	AWT	3[8]	-	1	0.2	Aquia Sanitary District
33	Aquia	Aquia Creek WQ (1-26)	Abandon- pump to new facility							
34	Fairview Beach	Potomac River (estuary)	Construct new facility	.05	Secondary	Secondary	-	-	-	Fairview Beach Sanitary District
35	Dahlgren	Upper Machodoc Creek WQ (1-28)	Upgrade and/or expand	.2	Secondary	Secondary	-	-	-	Dahlgren Sanitary District
36	Colonial Beach	Monroe Creek EL (1-28)	No further action recommended	.85	Secondary	28[5] [13]				Town of Colonial Beach
37	Machodoc Kinsale		Construct new facility	.89	Secondary & Spray Irrigation	48[10] [13]	-	-	-	Machodoc Kinsale Sanitary District
38	Callao		Construct new facility	.25	Secondary & Spray Irrigation	48[10] [13]	-	-	-	Callao Sanitary District

39	Heathsville		Construct new facility	.10	Secondary & Spray Irrigation	48[10] [13]	-	-	-	Heathsville Sanitary District
40	King George Courthouse	Pine Creek	Construct new facility	.039	Secondary	30[13]	-	-	-	King George County

TABLE B2 - NOTES: POTOMAC RIVER SUB-BASIN - RECOMMENDED PLAN FOR WASTEWATER TREATMENT FACILITIES

[1] Year 2000 design flow 201 Facility Plan, P.L. 92-500, unless otherwise noted.

[2] Year 2000 average flow from Potomac/Shenandoah 303(e) Plans, Vol V-A Appendix, 1975 pp. B-33-B-44.

[3] Future expansion at unspecified date.

[4] Secondary treatment: 24-30 mg/l BOD_5, advanced secondary treatment (AST): 11-23 mg/l, advanced wastewater treatment (AWT): <10mg/l BOD_5. A range is given to recognize that various waste treatment.processes have different treatment efficiencies.

[5] Effluent limits calculated using mathematical modeling.

[6] Effluent limits based on Occoquan Watershed Policy, presented under reevaluation.

[7] Effluent limits based on treatment levels established by the Potomac/Shenandoah 303(e) Plan, Vol. V-A 1975, p. 237, to protect low flow streams and downstream water supply.

[8] Effluent limits based on Potomac River Embayment Standards, presently under reevaluation. Nitrogen removal limits deferred until reevaluation is complete.

[9] Effluent limits based on Dulles Watershed Policy, recommended for reevaluation. Interim effluent limits of 12 mg/l BOD_5 and 20 mg/l Suspended Solids will be met until the Dulles Area Watershed Standards are reevaluated.

[10] Effluent limits based on Virginia Sewerage Regulation, Section 33.02.01.

[11] Interim effluent limits of 30 mg/l BOD_5, 30mg/l Suspended Solids, and 4 mg/l Phosphorus, will be effective until average daily flows exceeds 0.75 MGD. At greater flows than 0.75 MGD, the effluent limitations will be defined by the Potomac Embayment Standards.

[12] Secondary treatment is permitted for this facility due to the the extended outfall into the main stem of the Potomac River.

[13] This facility was also included in the Rappahannock Area Development Commission (RADCO) 208 Areawide Waste Treatment Management Plan and Potomac-Shenandoah River Basin 303 (e) Water Quality Management

Plan.

TABLE B3 - SHENANDOAH RIVER SUB-BASIN RECOMMENDED SEGMENT CLASSIFICATIONS

SEGMENT NUMBER	DESCRIPTION OF SEGMENT	MILE TO MILE	CLASSIFICATION
1-1	North River-main stream and tributaries excluding segments 1-1a, 1-1b	56.4-0.0	EL
1-1a	Muddy Creek-main stream and War Branch, RM 0.1-0.0	3.7 - 1.7	WQ
1-1b	North River-main stream	16.1 - 4.6	WQ
1-2	Middle River-main stream and tributaries excluding segments 1-2a, 1-2b	69.9 - 0.0	EL
1-2a	Middle River-main stream	29.5 - 17.9	WQ
1-2b	Lewis Creek-main stream	9.6 - 0.0	WQ
1-3	South River-main stream and tributaries excluding segment 1-3a	52.2 - 0.0	EL
1-4	South Fork Shenandoah-main stream and tributaries excluding segments 1-4a, 1-4b, 1-4c	102.9 - 0.0	EL
1-4a	South Fork Shenandoah-main stream	88.1 - 78.2	WQ
l-4b	Hawksbill Creek-main stream	6.20 - 0.0	WQ
1-4c	Quail Run-main stream	5.2 - 3.2	WQ
1-5	North Fork Shenandoah- main stream and tributaries excluding segment 1-5a, 1-5h	108.9 – 0.0	EL
1-5a	Stony Creek-main stream	19.9 - 14.9	WQ
1-5b	North Fork Shenandoah-main stream	89.0 - 81.4	WQ
1-6	Shenandoah River-main stream and tributaries excluding segments 1-6a, 1-6b	57.4 - 19.8	EL
1- 6a	Stephens Run-main stream	8.3 - 0.0	WQ
1-6b	Dog Run- main stream	5.2 - 0.0	WQ
1-7	Opequon Creek-main stream and tributaries excluding segments 1-7a, 1-7b	54.9 - 23.6	EL
l-7a	Opequon Creek-main stream	32.3 - 23.6	WQ
1-7b	Abrams Creek-main stream	8.7 - 0.0	WQ
1-8	All Virginia streams upstream of Opequon-Potomac confluence that have headwaters in Frederick County	--	EL
1-9	All Virginia streams upstream of Opequon-Potomac confluence that have headwaters in Highland County	--	EL

* R.M. = River Mile, measured from the river mouth

TABLE B4 - SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN FOR SELECTED INDUSTRIAL WASTEWATER TREATMENT FACILITIES

FACILITY NUMBER	NAME[1]	INDUSTRIAL CATEGORY	RECEIVING STREAM CLASSIFICATION	RECOMMENDED WASTELOAD ALLOCATION[2]			COMPLIANCE SCHEDULE
				BOD_5	TKN	NH_3 - N	
1	Wampler	Food Processing	War Branch WQ (1-1a)	84[3]	-	-	None
6	Wayn-Tex	Plastic and Synthetic Materials Mfg.*	South River WQ (I-3a)	44[5]	-	-	None
7	DuPont	Plastic and Synthetic Materials Mfg.*	South River WQ (I-3a)	600	-	50	None
8	Crompton-Shenandoah	Textile Mills*	South River WQ (1-3a)	60	173[4]	88	None
10	General Electric	Electroplating*	South River WQ (1-3a)	BPT Effluent Limits			None
12	Merck	Miscellaneous Chemicals (Pharmaceutical)*	S. F. Shenandoah River WQ (1-4a)	3454	2846	1423	Consent Order
17	VOTAN	Leather, Tanning and Finishing*	Hawksbill Creek WQ (I-4b)	240	75	-	None
21	National Fruit	Food Processing	N. F. Shenandoah River WQ (1-5b)	[6]	[6]	[6]	None
22	Rockingham Poultry	Food Processing	N. F. Shenandoah River WQ (1-5b)	[6]	[6]	[6]	None
23	Shen-Valley Meat Packers	Food Processing	N. F. Shenandoah River WQ (1-5b)	[6]	[6]	[6]	None
35	O'Sullivan	Rubber Processing* Machinery and Mechanical Products Manufacturing	Abrams Creek WQ (I-7b)	BPT Effluent Limits			None

TABLE B4 - NOTES: SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN SELECTED INDUSTRIAL WASTEWATER TREATMENT FACILITIES

[1] An * identifies those industrial categories that are included in EPA's primary industry classification for which potential priority toxic pollutants have been identified.

[2] Allocation (lb/d) based upon 7Q10 stream flow. Tiered permits may allow greater wasteloads during times of higher

flow. BPT = Best Practicable Technology.

(3) A summer 1979 stream survey has demonstrated instream D.O. violations. Therefore, the identified wasteload allocation is to be considered as interim and shall be subject to further analysis.

(4) The NPDES permit does not specify TKN but does specify organic-N of 85 lb/d. TKN is the sum of NH -N and organic -N.

(5) This allocation is based upon a flow of 0.847 MGD.

(6) The total assimilative capacity for segment WQ (1-5b) will be developed from an intensive stream survey program and development of an appropriate calibrated and verified model. Wasteload allocations for National Fruit, Rockingham Poultry and Shen-Valley will be determined after the development of the calibrated and verified model and the determination of the segment's assimilative capacity.

TABLE B5 - SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN FOR SELECTED MUNICIPAL WASTEWATER TREATMENT FACILITIES

FACILITY NUMBER	NAME	RECOMMENDED RECEIVING STREAM	FACILITY			WASTELOAD ALLOCATION(3) lb/d BOD_5	INSTITUTIONAL ARRANGEMENT	COMPLIANCE(SCHEDULE
			RECOMMENDED ACTION	SIZE(1)	TREATMENT(2) LEVEL			
2	Harrisonburg Rockingham Reg. Sewer Auth.	North River WQ (1-1)	Correct I/I	12.0(5)	AST	2,0002(6)	Harrisonburg-Rockingham Regional Sewer Authority	None
3	Verona	Middle River WQ (1-2a)	Construct new facility, abandon old plant, correct I/I	0.8	Secondary	Secondary Limits	Augusta County Service Authority	July 1, 1983
4	Staunton	Middle River WQ (1-2a)	Upgrade, provide outfall to Middle River, correct I/I	4.5	Secondary	Secondary Limits	City of Staunton	July 1, 1983
5	Fishersville	Christians Creek EL (1-2)	No further action recommended	2.0	Secondary	Secondary Limits	Augusta County Service Authority	None

9	Waynesboro	South River WQ (1-3a)	Upgrade, correct I/I	4.0	AWT with nitrification	250[5]	City of Waynesboro	July 1, 1983
11	Grottoes	South River EL (1-3)	Construct new facility	0.225	Secondary	Secondary Limits	Town of Grottoes	No existing facility
13	Elkton	S.F. Shenandoah River WQ (1-4a)	Construct new facility, abandon old plant	0.4	Secondary	Secondary Limits	Town of Elkton	July 1, 1983
14	Massanutten Public Service Corporation	Quail Run WQ (1-4c)	No further action recommended	1.0	AWT	84.0[8]	Private	None
15	Shenandoah	S.F. Shenandoah River EL (1-4)	Upgrade, expand, correct I/I	0.35	Secondary	Secondary limits	Town of Shenandoah	No existing facility
16	Stanley	S.F. Shenandoah River EL (1-4)	Construct new facility	0.3	Secondary	Secondary limits	Town of Stanley	No existing facility
18	Luray	Hawksbill Creek WQ (1-4b)	Construct new facility, abandon old plant, correct I/I	0.8	Secondary	Secondary Limits	Town of Luray	July 1, 1983
19	Front Royal	Shenandoah River EL (1-6)	Construct new facility, abandon old plant, correct I/I	2.0	Secondary	Secondary Limits	Town of Front Royal	July 1, 1983
20	Broadway	N.F. Shenandoah River WQ (1-5b)	Upgrade, expand, investigate I/I	[6]	[6]	[6]	Town of Broadway	July 1, 1983
24	Timberville	N.F. Shenandoah River WQ (1-5b)	Upgrade, expand, investigate I/I	[6]	[6]	[6]	Town of Timberville	July 1, 1983
25	New Market	N.F. Shenandoah River EL (1-5)	Upgrade, investigate I/I	0.2	Secondary	Secondary Limits	Town of New Market	July 1, 1983
26	Mount Jackson	N.F. Shenandoah River EL (1-5)	Upgrade, expand, correct I/I	.0.2	Secondary	Secondary Limits	Town of Mount Jackson	July 1, 1983

27	Edinburg	N.F. Shenandoah River EL (1-5)	Upgrade, expand, investigate I/I	0.15	Secondary AST	Secondary Limits 65	Town of Edinburg Public	July 1, 1983 None
28	Stony Creek Sanitary District	River EL (1-5) Stony Creek WQ (1-5a)	No further action required	0.6	AST	65	Public	
29	Woodstock	N.F. Shenandoah River EL (1-5)		0.5	Secondary	Secondary Limits	Town of Woodstock	July 1, 1983
30	Toms Brook-Mauertown	Toms Brook EL (1-5)	Construct new facility	0.189	Secondary	Secondary Limits	Toms Brook	No existing facility
31	Strasburg	N.F. Shenandoah River EL (1-5)	Upgrade, expand, correct I/I	0.8	Secondary	Secondary Limits	Town of Strasburg	July 1, 1983
32	Middletown	Meadow Brook EL (1-5)	Upgrade, expand	0.2	Secondary	Secondary	Town of Middletown	July 1, 1983
33	Stephens City Stephens Run	Stephens Run EL (1-6a)	Upgrade, expand	0.54	AST	72	Frederick-Winchester Service Authority	July 1, 1983
34	Berryville	Shenandoah River EL (1-6)	Upgrade, provide outfall to Shenandoah River, investigate I/I	0.41	Secondary	Secondary Limits	Town of Berryville	July 1, 1983
36	Frederick-Winchester Regional	Opequon Creek WQ (1-7a)	Construct new facility, abandon county and city plans, correct I/I	6.0	AWT with nitrification	456[7]	Frederick-Winchester Service Authority	July 1, 1983
37	Monterey	West Strait Creek EL (1-9)	Upgrade, correct I/I	0.075	Secondary	Secondary Limits	Town of Monterey	July 1, 1983

TABLE B5 - NOTES: SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN FOR SELECTED MUNICIPAL WASTEWATER TREATMENT FACILITIES

(1) Year 2000 design flow (MGD) unless otherwise noted.

(2) Secondary treatment: 24-30 mg/l BOD_5, advanced secondary treatment (AST): 11-23 mg/l BOD_5, advanced

wastewater treatment (AWT): <10 mg/l BOD_5. A range is given to recognize that various waste treatment processes have different treatment efficiencies.

(3) Recommended wasteload allocation calculated using mathematical modeling based upon 7Q10 stream flows. Tiered permits may allow greater wasteloads during periods of higher stream flows. Allocations other than BOD_5 are noted by footnote.

(4) The July 1, 1983, data is a statutory deadline required by P.L. 92-500, as amended by P.L. 92-217. The timing of construction grant funding may result in some localities to miss this deadline.

(5) Year 2008 design.

(6) This BOD loading is based on a 7QI0 flow rate of 26.8 cfs at the HRRSA discharge.

(7) NH_3-N = 50 lb/d.

(8) This allocation is based on a TKN loading no greater than 84 Ib/day.

9 VAC 25-720-80. Roanoke River Basin.

A. Total maximum Daily Load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/ County	WBID	Pollutant	WLA	Units
1.	Ash Camp Creek	Total Maximum Daily Load Development for Ash Camp Creek	Charlotte	L39R	Sediment	20.7	T/YR
2.	North Fork Blackwater River	Total Maximum Daily Load (TMDL) Development for the Upper Blackwater River Watershed	Franklin	L08R	Sediment	0	T/YR
3.	North Fork Blackwater River	Total Maximum Daily Load (TMDL) Development for the Upper Blackwater River Watershed	Franklin	L08R	Phosphorus	0	T/YR

4.	Upper Blackwater River	Total Maximum Daily Load (TMDL) Development for the Upper Blackwater River Watershed	Franklin	L08R	Sediment	0.526	T/YR
5.	Flat Creek	Benthic TMDL for Flat Creek Watershed, Virginia	Mecklenburg	L79R	Sediment	76.2	T/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations.

TABLE B1 - STREAM SEGMENT CLASSIFICATION

Classification		Segment description
WQMA IV		
	E	All tributaries to the Roanoke River not previously classified in the WQMA.
WQMA V		
	E	Roanoke River and all tributaries in this WQMA.
WQMA VI		
	WQ	Ash Camp Creek.
	EL	Twittys Creek.
	E	Roanoke Creek to include all tributaries not previously classified in the WQMA.

WQMA VII		
	WQ	Banister River from /confluence of Polecat Creek to confluence of Dan and Banister Rivers (River only).
	EL	Dan River from confluence Miry Creek to backwaters of Kerr Reservoir (River only).
	WQ	Kerr Reservoir.
	WQ	Little Bluestone Creek.
	WQ	Butcher Creek
	WQ	Flat Creek.
	E	All tributaries to Kerr Reservoir, Dan River and Banister River not previously classified in this WQMA.
	E	Roanoke River from confluence Clover Creek to headwaters of Kerr Reservoir.
	E	All tributaries to the Roanoke River in this WQMA not previously classified.
WQMA VIII		
	E	Hyco River from the NC-VA, State Line to its confluence with the Dan River to include all tributaries.
WQMA IX		
	E	Banister River through this WQMA
	EL	Georges Creek.

	EL	Cherrystone Creek.
	E	All tributaries to the Banister River not previously classified in this WQMA.
WQMA X		
	E	Dan River from NC-VA State Line to one mile above the confluence of Sandy River (River only).
	E	Sandy River to include all tributaries.
	WQ	Dan River from one mile above confluence of Sandy River to NC-VA line.
	E	Dan River from NC-VA line to confluence Miry Creek
	E	All tributaries to the Dan River in Virginia not previously classified in this WQMA.
WQMA XII		
	E	Smith River from its headwaters to Philpot Dam.
	WQ	Smith River from Philpott Dam to the NC-VA State Line.
	EL	Marrowbone Creek.
	EL	Leatherwood Creek.
	E	All tributaries to the Smith River not previously classified in this WQMA.
WQMA XIII		
	E	North Mayo River from its headwaters to the NC-VA State Line to include all tributaries.

WQMA XIV		
	E	Headwaters South Mayo River to confluence North Fork South Mayo River.
	EL	South Mayo River from confluence with North Fork to NC-VA Line.
	E	All tributaries of the South Mayo River not previously classified in this WQMA.
WQMA XV		
	E	All streams in this WQMA.

Source: Hayes, Seay, Mattern & Mattern

TABLE B2 - SEWERAGE SERVICE AREAS - WASTELOAD ALLOCATIONS FOR ROANOKE RIVER BASIN WATER QUALITY MANAGEMENT PLAN.

Water Quality Management Area (WQMA)	Study Area Name	Discharger	Stream Name	Segment Classification	303(e)Wasteload Allocation BOD_5 lbs/day
WQMA IV	Appomattox	Appomattox STP	Falling R.	EL	100.00
WQMA IV	Brookneal	Brookneal STP and Dan River, Inc. -Brookneal	Roanoke R.	EL	1381.20
WQMA IV	Rustburg	Rustburg STP	Molleys Cr.	WQ	17.94
WQMA VI	Drakes Branch	West Point Stevens - Drakes Branch	Twittys Cr.	EL	27.82
WQMA VII	Clarksville	Chase City Regional STP	Little Blue Stone Cr.	WQ	N/A[1]

WQMA VII	Chase City- Boydton	Boydton Clarksville STP Burlington Industries - Clarksville	Coleman Cr. Kerr Reservoir Kerr Reservoir	EL WQ WQ	N/A[1] 131.00 1793.00
WQMA VII	South Boston Halifax- Scottsburg Clover	South Boston STP Halifax STP, Halifax Cotton Mills, Burlington Ind. - Halifax and Scottsburg STP Clover	Dan River Banister R. Clover Cr.	WQ WQ EL	1854.00 584.84 8.76
WQMA VII	South Hill - Lacrosse - Broadnax	South Hill, Lacrosse and Broadnax	Flat Cr.	WQ	N/A[1]
WQMA VII	Virgilina	Virgilina	X-Trib. To Wolfpit Run	EL	13.00
WQMA IX	Chatham - Gretna	Chatham - Gretna	Cherrystone Cr. Georges Cr.	EL EL	125.22 100.00
WQMA X	Dan River	Danville and US Gypsum	Dan R.	WQ	4407.00
WQMA X	Dan River, Inc.	WILL DISCHARGE PROCESS WATER TO THE CITY OF DANVILLE STP			
WQMA XII	Smith R.	Henry County PSA-Upper Smith R. STP	Smith R.	WQ	567.00
		Collinsville STP Fieldcrest Mills	CONNECTED TO UPPER SMITH R. STP CONNECTED TO UPPER SMITH R. STP		
		E.I. duPont	Smith R.	WQ	503.00

		Martinsville STP	Smith R.	WQ	1500.00
		Henry County PSA-Lower Smith R. STP	Smith R.	WQ	567.00
WQMA XIV	Stuart-Patrick Springs	Stuart STP	S. Mayo R.	EL	141.90
		United Elastic Patrick Springs	S. Mayo R.	EL	8.38
WQMA XIV	NONE	United Elastic Woolwine	Smith R.	EL	192.00

NOTES:

[1]See Table B3 of this section.

TABLE B3 - WASTELOAD ALLOCATIONS FOR DISCHARGERS WITH TIERED PERMITS ROANOKE RIVER BASIN WATER QUALITY MANAGEMENT PLAN.

Water Quality Manage-ment Area (WQMA)	Study A rea Name	Discharger	Months	Effluent Flow (mgd)	D.O. (mg/l)	$CBOD_5$ (lbs/day)	BOD_5 (mg/l)	Ammonia (mg/l)	Total Kjeldahl Nitrogen (mg/l)
WQMA VI	Keysville	Keysville	Dec.-Apr.	0.500	5.0	104.32	25.0[1]	1.4	
			May-Nov.	0.500	5.0	70.94	17.0[1]		4.0
WQMA VII	South Hill-Lacrosse-Broadnax	South Hill	Jan.-Feb.-March	1.000	6.5	250.00	30.0	20.0	
			Apr.-May	1.000	6.5	83.0	10.0	1.0	
			June-Sept	1.000	6.5	75.00	9.0	1.0	
			Oct.	1.000	6.5	83.00	10.0	1.0	
			Nov.	1.000	6.5	142.00	17.0	5.0	
			Dec.	1.000	6.5	250.00	30.0	20.0	

WQMA VII	Clarksville-Chase City-Boydton	Boydton	May-Nov. Dec.-Apr.	0.360 0.360	5.0 5.0	39.1 75.1	13.0[1] 25.0[1]		3.0
WQMA VII	Clarksville-Chase City-Boydton	Chase City	May-Nov. Dec.-Apr.	0.600 0.600	6.0 7.0	65.04 125.22	13.0[1] 25.0[1]	1.8 3.4	4.2 8.8

NOTES:

[1]$CBOD_5$ ($CBOD_5/BOD_5$=25/30).

TABLE B4 - SEGMENT CLASSIFICATION - STANDARDS UPPER ROANOKE RIVER SUBAREA

HUC CODE 03010101

Stream Name	303(e) Segment Number	Mile to Mile	Stream Classification	Comments
N.F. Roanoke River	4A-1	30.80 to 0.00	E.L.-P	Main and tributaries.
S.F. Roanoke River	4A-1 16.60 to 0.00 E.L.-P Main and tributaries.	16.60 to 0.00	E.L.-P W.Q.-FC	Main and tributaries. Main only.

Roanoke River	4A-2	227.74 to 202.20	W.Q.-DO,P	Main only to 14th Street Bridge.
Peters Creek	4A-2	8.00 to 0.00	W.Q.-DO,P	Main only.
Roanoke River	4A-2	202.20 to 195.87	W.Q.-DO,P	Main to confluence with Prater Creek.
Tinker Creek	4A-2	19.40 to 0.00	W.Q.-DO,P, FC	Main only.
Beck Creek	4A-2	25.70 to 0.00	E.L.-P	Main and tributaries.
Roanoke River	4A-2	195.87 to 158.20	W.Q.- DO,P	Main and impounded tributaries (impounded portions only) to Smith Mtn. Dam.
Other tributaries to the Roanoke River	4A-2	227.74 to 158.20	E.L.-P	Tributaries only.
Blackwater River	4A-3	58.80 to 19.75	E.L.-P	Main and tributaries.
Blackwater River	4A-3	19.75 to 0.00	W.Q.-DO,P	Main and impounded tributaries(impounded portions only) to mouth of Blackwater River.

Other tributaries to the Blackwater River	4A-3	58.80 to 0.00	E.L.-P	Tributaries only.
Pigg River	4A-4	79.80 to 58.00	E.L.	Main and tributaries from the headwaters to the confluence with Furnace Creek - except Story Creek.
Storey Creek	4A-4	10.30 to 0.00	W.Q.-DO	Main Only.
Pigg River	4A-4	58.00 to 47.60	W.Q.-DO	Main only from Furnace Creek to the confluence with Powder Mill Creek.
Pigg River	4A-4	47.60 to 0.00	E.L.	Main and tributaries.
Roanoke River	4A-5	158.20 to 140.54	E.L.	Main and tributaries. (Leesville Lake)
Goose Creek	4A-5	39.30 to 0.00	E.L.	Main and tributaries.
Little Otter River	4A-5	17.15 to 14.36	E.L.	Main and tributaries to confluence with Johns Creek.
Johns Creek	4A-5	4.00 to 0.00	W.Q.-DO	Main only.

Little Otter River	4A-5	14.36 to 0.00	W.Q.-DO	Main only from confluence with Johns Creek to Big Otter River.
Big Otter River	4A-5	42.68 to 0.00	E.L.	Main and tributaries.
Roanoke River	4A-5	140.54 to 123.79	E.L.	Main and tributaries.

Legend:

DO = Dissolved Oxygen

P = Phosphorus

FC = Fecal Coliform

T = Temperature

TABLE B5 - WASTELOAD ALLOCATIONS BASED ON EXISTING DISCHARGE POINT 1 UPPER ROANOKE RIVER SUBAREA

HUC 03010101

MAP LOCATION	STREAM NAME	SEGMENT NUMBER	SEGMENT CLASSIFI-CATION STANDARDS	MILE to MILE[2]	DISCHARGER	VPDES PERMIT NUMBER	VPDES PERMIT LIMITS BOD_5[4] kg/day	303(e) 3/ WASTELOAD ALLOCATION BOD_5[4] kg/day	TOTAL MAXIMUM DAILY LOAD W.Q. SEGMENTS BOD_5[4] kg/day
A	S.F. Roanoke R,	4A-1	E.L.-P WQ-FC	6.33-	Montgomery County PSA Shawsville STP	VA0024031	11.40	Secondary	
B	S.F. Roanoke R.	4A-1	E.L.-P	0.76-	Montgomery County PSA Elliston-Lafayette STP	VA0062219	28.00	Secondary	

C	X-trib to N.F. Roanoke R.	4A-1	E.L.-P	0.25-	Lonnie J. Weddle Residence	VA0073229	0.03	Secondary	
D	X-trib to N.F. Roanoke R.	4A-1	E.L.-P	0.25-	James Luther Residence	VA0073237	0.05	Secondary	
E	N.F. Roanoke R.	4A-1	E.L.-P	17.57-	Blacksburg Country Club, Inc.	VA0027481	4.00	Secondary	
1	Cedar Run	4A-1	E.L.-P	2.64- 0.46-	Wolverine Gasket Co., Inc	VA0052825	N/A	Secondary	
F	Cedar Run	4A-1	E.L.-P	0.40-	Wendell Hensley Residence	VA0066737	0.07	Secondary	
G	X-trib to Cedar Run	4A-1	E.L.-P	0.20-	Ivan Gary Bland Residence	VA0077488	0.05	Secondary	
H	Cedar Run	4A-1	E.L.-P	0.46-	Velma D. Compton Residence	VA0080021	0.06	Secondary	
2	N.F. Roanoke R.	4A-1	E.L.-P	15.21-	Federal Mogal, Inc.	VA0001619	N/A	Secondary	
I	N.F. Roanoke R.	4A-1	E.L.-P	0.76-	VDOT-I-81 Ironto Rest Area	VA0060941	2.80	Secondary	
3	X-trib to Roanoke R.	4A-2	E.L.-P	1.04-	Salem Stone Corp.	VA0006459	N/A	Secondary	
4	Roanoke R.	4A-2	W.Q.-DO,P	218.13-	Roanoke Electric Steel Salem Plant	VA0001333	N/A	N/A	N/A
5	Roanoke R.	4A-2	W.Q.-DO,P	216.33-	Koppers Co. Inc.	VA0001341	N/A	N/A	N/A
6	Snyders Br.	4A-2	E.L.P	0.17-	Graham White Mfg., Inc.	VA0030031	N/A	Secondary	
7	Bowmans's Br.	4A-2	E.L.P.	0.20-	Mechanical Development Co., Inc.	VA002311	N/A	Secondary	

8	Roanoke R.	4A-2	W.Q-DO,P	212.61-	Rowe Furniture Corp., Inc.	VA0024716	N/A	N/A	N/A
9	Roanoke R.	4A-2	W.Q.L.-DO,P	212.39-	Valleydale Packers, Inc.	VA0001317	N/A	N/A	N/A
J	X-trib to Mason Cr.	4A-2	E.L.P.	0.21	Gary L. Bryant Residence	VA0063398	0.07	Secondary	
K	Mason Cr.	4A-2	E.L.P.	0.30-	Roanoke County Schools Mason Cove E.S.	VA0027545	0.45	Secondary	
L	Mason Cr.	4A-2	E.L.P.	7.79-	Roanoke Moose Lodge 284	VA0077895	0.53	Secondary	
M	Gish Br.	4A-2	E.L.P.	1.80-	Eddie Miller Residence	VA0076759	0.06	Secondary	
10	Roanoke R.	4A-2	W.Q.-DO,P	209.58-	Virginia Plastics Co., Inc.	VA0052477	N/A	N/A	N/A
10	X-trib to Mud Lick	4A-2	E.L.P.	0.47-	Virginia Plastics Co., Inc.	VA002477	2.70	Secondary	
11	Peters Cr.	4A-2	W.Q.-DO,P	0.26-	Roanoke Electric Steel Roanoke Plant	VA0001589	N/A	N/A	N/A
12	Roanoke R.	4A-2	W.Q.-DO,P	207.60-	Fuel Oil & Equipment Co., Inc.	VA0001252	N/A	N/A	N/A
13	Roanoke R.	4A-2	W.Q.-DO,P	207.24	Norfolk & Western Railways Co., Inc.-Schaffers Crossing	VA0001597	N/A	N/A	N/A

13	Horton Cr.	4A-2	E.L.P.	0.41-	Norfolk & Western Railways Co., Inc.-Schaffers Crossing	VA0001597	N/A	Secondary	
N	Roanoke	4A-2	W.Q.-DO,P	201.81-	Roanoke City Regional STP	VA0025020	1173.00	1173.00	1352.00
14	Carvin Cr.	4A-2	E.L.-P.	5.77-	Roanoke City Carvin Cove	VA0001473	N/A	Secondary	
15	Carvin Cr.	4A-2	E.L.-P.	4.98-	ITT Electro-Optical Products Division	VA0020443	N/A	Secondary	
16	Tinker Cr	4A-2	W.Q.-DO,P,FC	5.17	Elizabeth Arden, Inc.	VA0001635	N/A	N/A	N/A
17	Tinker Cr	4A-2	W.Q.-DO,P,FC	1.45	Exxon Company, USA, Inc.	VA0079006	N/A	N/A	N/A
18	Lick Run	4A-2	E.L.-P.	3.51-	Norfolk & Western Railways Co., Inc.-Schaffers Crossing	VA0001597	N/A	Secondary	
18	Lick Run	4A-2	E.L.-P.	1.12-	Norfolk & Western Railways Co., Inc.-East End Shops	VA0001511	N/A	Secondary	
O	X-trib to Glade Cr	4A-2	E.L.-P.	1.60-	R.W. Bowers Commerical	VA0068497	0.06	Secondary	
P	X-trib to Glade Cr	4A-2	E.L.-P.	1.24-	Geraldine B. Carter Residence	VA0076546	0.06	Secondary	

Q	Coyner Spring Br.	4A-2	E.L.-P.	0.50-	Roanoke City-Coyner Springs STP	VA0021121	0.80	Secondary	
R	Back Cr.	4A-2	E.L.-P.	16.14-	Roanoke Sanitary Disposal Corp.-Starkey STP	VA0027103	45.40	Secondary	
19	Back Cr.	4A-2	E.L.-P.	1.48-	Shell Oil Co., Inc.	VA0001431	N/A	Secondary	
S	X-trib to Back Cr.	4A-2	E.L.-P.	1.00-	Suncrest Development Co., Inc.-Suncrest Heights STP	VA0028711	2.30-	Secondary	
20	Falling Cr.	4A-2	E.L.-P.	7.70-	Roanoke City-Falling Cr. WTP	VA0001465	N/A	Secondary	
T	X-trib to Falling Cr.	4A-2	E.L.-P.	0.32-	Oak Ridge Mobile Home Park	VA0078392	3.40	Secondary	
U	Nat Branch	4A-2	E.L.-P.	0.59-	Bedford County Schools Stewartsville E.S.	VA0020842	0.50	Secondary	
V	Roanoke R.	4A-2	W.Q.-DO,P	182.76-	L. Jack & Vicki S. Browning Residence	VA0067229	0.07	0.07	170.07
W	X-trib to Little Cr.	4A-2	E.L.-P.	0.16-	Robert R. Walter Residence	VA0074004	0.05	Secondary	
X	X-trib to Teals Cr.	4A-3	E.L.-P.	0.96-	Franklin County Schools Boones Mill E.S.	VA0060291	0.50	Secondary	

21	Blackwater R.	4A-3	E.L.-P.	40.05-	Rocky Mount Town Blackswater R. WTP	VA0055999	N/A/	Secondary	
Y	Blackwater R.	4A-3	E.L.-P.	38.95-	Franklin Manor Home for Adults	VA0067555	1.70	Secondary	
Z	X-trib to Blackwat er R.	4A-3	E.L.-P.	1.15-	Franklin County Schools Rocky Mount E.S.	VA0060283	0.80	Secondary	
AA	X-trib to Maggodee Cr.	4A-3	E.L.-P.	0.28-	Boones Mill Town- Sand Filter	VA0078401	0.50	Secondary	
AB	Maggodee Cr.	4A-3	E.L.-P.	14.51	Boones Mill Town STP	VA0067245	3.40	Secondary	
AC	Roanoke R.	A-5	E.L.-P.	158.09-	APCO- SML Dam Visitors Center	VA0074179	0.57	Secondary	
AD	Roanoke R.	4A-5	E.L.-P.	157.49-	APCO- SML Dam Picnic Area	VA0074217	0.57	Secondary	
AE	Storey Cr.	4A-4	W.Q.-DO	9.78-	Ferrum Water & Sewage Authority Ferrum STP	VA0029254	14.20	14.20	14.60
23	X-trib to Pigg R.	4A-4	E.L.	1.28-	The Lane Company-Rocky Mount Plant	VA0098438	N/A	Secondary	
22	Pigg R.	4A-4	W.Q.-DO	57.24-	Ronile, Inc.	VA0076015	14.80	14.80	34.98
AF	Pigg R.	4A-4	W.Q.-DO	56.72-	Rocky Mt. Town Existing STP	VA0023728	133.00	133.00	153.18
				52.68-	Rocky Mt. Town Proposed STP	VA0085952		133.00	

24	X-trib to Powder Mill Cr.	4A-4	E.L.	1.64-	Rocky Top Wood Preservers Inc.	VA0080071	N/A	Secondary	
AG	Willow Cr.	4A-4	E.L.	1.30-	Town & Country Subdivision	VA0028657	4.50	Secondary	
25	S.F. Goose Cr.	4A-5	E.L.	6.77-	Blue Ridge Stone Corp.- Blue Ridge Plant	VA0050636	N/A	Secondary	
AH	X-trib to Goose Cr.	4A-5	E.L.	0.66-	Woodhaven Village, Inc.	VA0074870	0.50	Secondary	
26	X-trib to Goose Cr.	4A-5	E.L.	0.08	Conoco, Inc.	VA0055328	N/A	Secondary	
27	S.F. Goose Cr.	4A-5	E.L.	2.58-	Chevron USA, Inc.	VA0026051	N/A	Secondary	
28	X-trib to Goose Cr.	4A-5	E.L.	0.20-	Phillips Petroleum Co., Inc.	VA0051446	N/A	Secondary	
29	X-trib to Goose Cr.	4A-5	E.L.	0.04-	Amoco Oil Co., Inc.	VA0054577	N/A	Secondary	
29	X-trib to Goose Cr.	4A-5	E.L.	0.06-	Amoco Oil Co., Inc.	VA0054577	N/A	Secondary	
29	X-trib to Goose Cr..	4A-5	E.L.	0.14-	Amoco Oil Co., Inc.	VA0054577	N/A	Secondary	
30	S.F. Goose Cr.	4A-5	E.L.	2.30-	Colonial Pipeline Co., Inc.	VA0051721	N/A	Secondary	
AI	X-trib to N.F. Goose Cr..	4A-5	E.L.	0.20-	Bedford County Schools- Montvale E.S.	VA0066206	0.42	Secondary	
31	S.F. Goose Cr.	4A-5	E.L.	2.18-	Texaco, Inc.	VA0001490	N/A	Secondary	
AJ	X-trib to Day Cr.	4A-5	E.L.	1.79-	Camp Virginia Jaycee Inc.	VA0060909	1.70	Secondary	

AK	X-trib to Reed Cr.	4A-5	E.L.	0.84-	Robincrest Mobile Home Park	VA0078413	2.70	Secondary	
AL	X-trib to Wolf Cr.	4A-5	E.L.	0.95	Bedford County Schools Thaxton E.S.	VA0020869	0.30	Secondary	
AM	X-trib to Shoulder Run	4A-5	E.L.	0.95-	Bedford County Schools- Staunton River H.S.	VA0068063	2.90	Secondary	
AN	Goose Cr.	4A-5	E.L.	19.55-	Camp Tipacanoe Inc.	VA0068063	1.10	Secondary	
AO	Mattock Cr.	4A-5	E.L.	3.76-	VDOC- Filed Unit #24 Smith Mtn. Lake	VA0023515	2.40	Secondary	
32	Staunton (Roa.) R.	4A-5	E.L.	129.72-	Burlington Industries- Klopman Division Altavista Plant	VA0001678	530.00	Secondary	
33	Staunton (Roa.) R	4A-5	E.L.	128.96-	Altavista Town WTP	VA0027189	N/A	Secondary	
34	Staunton (Roa.) R	4A-5	E.L.	128.94-	The Lane Co., Inc. Altavista Plant	VA0001520	N/A	Secondary	
	Staunton (Roa.) R	4A-5	E.L.		Town of Hurt (Proposed)			Secondary	
AP	Staunton (Roa.) R	4A-5	E.L.	127.96-	Altavista Town STP	VA0020451	204.00	Secondary	
35	Staunton (Roa.) R	4A-5	E.L.	126.39-	Ross Labortories	VA0001716	66.20 4	Secondary	
36	X-trib to Big Otter R.	4A-5	E.L.	1.63-	Bedford City WTP	VA0001503	N/A	Secondary	

37	Roaring Run	4A-5	E.L.	3.26-	Gunnoe Sausage Co., Inc.	VA0001449	0.55	Secondary	
AQ	X-trib to Big Otter R.	4A-5	E.L.	1.15-	Bedford County Schools Otter River E.S.	VA0020851	0.40	Secondary	
38	X-trib to Little Otter R.	4A-5	E.L.	0.76-	Wheelbrator Frye, Inc.	VA0058033	N/A	Secondary	
AR	X-trib to Little Otter R.	4A-5	E.L.	0.42-	Bedford County Schools –Liberty H.S.	VA0020796	2.80	Secondary	
AS	Little Otter R.	4A-5	W.Q.-DO	14.36-	Bedford City STP	VA0022390	52.80	52.80	64.15
39	Johns Cr.	4A-5	W.Q.-DO	2.61-	Golden West Foods, Inc.	VA0056430	N/A	N/A	N/A
AT	X-trib to Wells Cr.	4A-5	E.L.	2.22-	Bedford Country Schools Body Camp E.S.	VA0020818	0.40	Secondary	
AU	X-trib to Big Otter R.	4A-5	E.L.	1.20-	David T. Callahan Residence	VA0080667	0.57	Secondary	
AV	X-trib to Buffalo Cr	4A-5	E.L.	0.67-	Bedford Country Schools New London Academy	VA0020826	0.50	Secondary	
AW	Buffalo Cr	4A-5	E.L.	12.42-	Alum Springs Shopping Center	VA0078999	4.50	Secondary	
40	Big Otter R.	4A-5	E.L.	11.74-	Campbell Country USA (Proposed WTP)	VA0078646	N/A	Secondary	
BF	X-trib to Big Otter R	4A-5	E.L.	1.07-	Otterwood Grocery Store	VA0082732	0.05	Secondary	

AX	Flat Cr.	4A-5	E.L.	13.34-	Virginia Track & Equipment Corp.	VA0068594	0.03	Secondary	
BD	X-trib to Flat Cr.	4A-5	E.L.	0.68	Montague Betts Co, Inc.	VA0075116	0.45	Secondary	
41	Flat Cr.	4A-5	E.L.	12.62-	Blue Ridge Stone Corp. Lynchburg Plant	VA0050628	N/A	Secondary	
AY	X-trib to Flat Cr.	4A-5	E.L.	0.12-	Winebarger Corp	VA0074969	0.70	Secondary	
AZ	Smith Br.	4A-5	E.L.	2.82-	Briarwood Village	VA0031194	2.70	Secondary	
BE	X-trib to Flat Cr.	4A-5	E.L.	0.88-	Ralph P. Shepard Residence	VA0081591	0.05	Secondary	
BA	X-trib to Flat Cr.	4A-5	E.L.	1.16-	Phillips, Arthur, Phillips Tract #6	VA0068098	0.05	Secondary	
BB	X-trib to Flat Cr.	4A-5	E.L.	1.12-	Kyle E. & Annette D. Shupe Residence	VA0068080	0.05	Secondary	
BC	X-trib to Flat Cr.	4A-5	E.L.	1.08-	Wayne E. & Sherina D. Shupe Residence	VA0068071	0.05	Secondary	
BG	X-trib to Troublesome Cr.	4A-5	E.L.	2.15-	Kelly Convenience Store	VA0067078	0.11	Secondary	

NOTES:

N/A - Not Applicable - currently no BOD_5 limits or wasteload have been required by the VPDES Permit. Should BOD_5 be required a WQMP amendment would be necessary for Water Quality Limited Segments only.

[1]Secondary Treatment levels are required in Effluent Limited segments. Quantities listed for Water Quality Limited segments represent wasteload allocation.

[2]Ending river miles are not available at this time.

[3]These allocations represent current and original (1976 WQMP) modeling with the exception of the Altavista segment, river miles 130.00 to 119.00 on the Staunton (Roanoke) River. Future revisions may be necessary based

on State Water Control Board approved modeling.

[4]The VPDES Permit limit presented here is a future loading, not the current VPDES Permit limitation. The permitting process will determine the current loading not to exceed 1173 kg/d WLA established by this plan.

[5]The current permitted BOD_5 loading for this facility is 30 mg/l monthly average and 45 mg/l daily maximum. Based on maximum flowes reported by this facility for 1987-88 (0.389 mgd) the resulting wasteload is 66.2 kg/d. Revocation of the permit has been requested by the permittee.

9 VAC 25-720-90. Tennessee-Big Sandy River Basin.

A. Total maximum Daily Load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/ County	WBID	Pollutant	WLA	Units
1.	Guest River	Guest River Total Maximum Load Report	Wise	P11R	Sediment	317.52	LB/YR
2.	Cedar Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	1,789.93	LB/YR
3.	Hall/Byers Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	57,533.49	LB/YR
4.	Hutton Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	91.32	LB/YR
5.	Clinch River	Total Maximum Daily Load Development for	Tazewell	P01R	Sediment	206,636	LB/YR

		the Upper Clinch River Watershed					
6.	Lewis Creek	Total Maximum Daily Load Development for the Lewis Creek Watershed	Russell	P04R	Sediment	21,732	LB/YR
7.	Black Creek	General Standard Total Maximum Daily Load Development for Black Creek, Wise County, Virginia	Wise	P17R	Manganese	2,127	KG/YR
8.	Dumps Creek	General Standard Total Maximum Daily Load Development for Dumps Creek, Russell County, Virginia	Russell	P08R	Total Dissolved Solids	1,631,575	KG/YR
9.	Dumps Creek	General Standard Total Maximum Daily Load Development for Dumps Creek, Russell County, Virginia	Russell	P08R	Total Suspended Solids	316,523	KG/YR
10.	Beaver Creek	Total Maximum Daily Load Development for the Beaver Creek Watershed	Washington	O07R	Sediment	784,036	LB/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations.

TABLE B1 - SEWERAGE SERVICE AREAS

NPDES LIMITS[3]

Map[1] No.	Locality	Receiving Stream Classification[2]	FLOW (mgd)	BOD_5 (1lbs/day)	SS (lbs/day)	Status of Applicable[4] Section 201 Programs (March 1977)
14T	Abingdon	EL	0.6	840	840	Step III at EPA for award.
14B	Amonate	EL	Permit to be issued in future			Not on priority list.
4T	Appalachia	EL	0.3	75	75	To be studied with Big Stone Gap
5T	Big Stone Gap	EL	0.8	240	240	Recommended for FY 77 Step 1.
13B	Bishop	EL	Permit to be issued in future			Not on priority list.
	Bristol	EL	Served by plant in Tennessee			Health hazard area to be served by collection system funded in FY 76. Extension of existing interceptor into Bearer Creek & Sinking Creek area to be funded by Region IV EPA and Tennessee. Also infiltration/inflow study to be funded in FY 77.
23T	Chilhowie	EL	0.265	68.5	79.6	Proposed Step I study with Marion.
	Cleveland	WQ	0.05	12.5	12.5	Step III grant awarded by EPA.
	Clinchport	WQ	Not to exceed present discharge			Town and Country Authority has not yet applied for Step I from FY 76 funds.
2B	Clintwood	WQ	0.235	*70.5/117.5	*70.5/ 117.5	On FY 77 list for Step I.
11T	Coeburn	WQ	0.4	160	160	On FY 77 list for Step I.
18T	Damascus	EL	0.25	62.5	62.5	Final audit and inspection of facility completed.
6T	Duffield	EL	0.075	30	30	Not on priority list.
	Dungannon- Fort Blackmore	WQ	Permit to be issued in future			Not on priority list.
10T	Gate City- Weber City	EL	0.504	*151/252	*151/252	Step I in progress.
3B, 5B	Harmon-Big Rock		1.25	156	312	System is approved by state and submitted to EPA.
6B, 7B	Grundy-Vansant	WQ	Permit to be issued in future			System is approved and submitted to EPA.
9B	Haysi	WQ	Permit to be issued in future			Step I plan is complete. Town disapproved plan. SWCB evaluating alternatives.

8B T	Hurley	WQ	Permit to be issued in future			Step I plan complete and under review by state.
1T	Jonesville	EL	0.15	38	38	Not on priority list.
13T	Lebanon	WQ	0.2	60	60	Step III application at EPA.
25T	Marion	EL	1.7	510	510	Step I recommended for FY 77. Marion is proceeding on infiltration/inflow study under prior approval from EPA.
	Nickelsville	WQ	Permit to be issued in future			Not on priority list.
7T, 8T	Norton	WQ	0.77, 0.22	832,371	640,0184	Step I in process (with Wise).
2T	Pennington Gap	EL	0.315	410	315	Step I recommended for FY 76. Community has not yet completed Step I application.
1 B	Pound	WQ	0.175	44	44	Step III funded by EPA. Facility nearly completed.
19T	Raven-Doran	WQ	0.26	67.2	78	System to remain unchanged.
20T	Richlands	WQ	0.8	845	650	Step I in process. Step II recommended in FY 77.
	Rosedale	WQ	Permit to be issued in future			Not on priority list.
	Rose Hill-Ewing	EL	Permit to be issued in future			Not on priority list.
3T	St. Charles	EL	0.125	25	25	Abandonment proposed. Then to be served by Pennington Gap, subject to recommendations of Facility Plan.
12T	St. Paul	WQ	0.4	100	100	Complete and audited by EPA.
22T	Saltville	EL	0.5	125	125	Complete and audited by EPA.
	Sugar Grove-Teas	EL	Permit to be issued in future			Not on priority list.
15T	Swords Creek-Honaker	EL	0.144	187	144	Step I in FY 76. Step II recommended in FY 77.
24T	Tazewell, Town of	EL	0.70	*210/350	*210/350	Step I recommended in FY 77.
10B, 11B, 12B	Trammel-McClure	WQ	Permit to be issued in future			Not on priority list.
9T	Wise	WQ	0.28	112	112	Step I in progress (with Norton).

[1] Dischargers are shown on Plate 3-B (Map No. with “B” designates Big Sandy) and 3-T (Map No. with “T” designates Tennessee).

[2] Effluent Limiting (EL) or Water Quality (WQ).

[3] For existing sewage treatment facility.

[4] For new sewage treatment facility.

*Seasonal NPDES allowable loading: April to September/October to March.

Source: Thompson & Litton and State Water Control Board.

9 VAC 25-720-130. New River.

A. Total maximum Daily Load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/County	WBID	Pollutant	WLA	Units
1.	Stroubles Creek	Benthic TMDL for Stroubles Creek in Montgomery County, Virginia	Montgomery	N22R	Sediment	233.15	T/YR
2.	Back Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Back Creek Watershed, Pulaski County, VA	Pulaski	N22R	Sediment	0.28	T/YR
3.	Crab Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Crab Creek Watershed, Montgomery County, VA	Montgomery	N18R	Sediment	77	T/YR
4.	Peak Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Peak	Pulaski	N17R	Copper	12	KG/YR

		Creek Watershed, Pulaski County, VA					
5.	Peak Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Peak Creek Watershed, Pulaski County, VA	Pulaski	N17R	Zinc	57	KG/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations.

TABLE B1- SEWERAGE SERVICE AREAS

Map1 No.	Locality	Receiving2 Stream Classification	NPDES Limits3 Flow (mgd)	BOD5 (kg/day)	SS (kg/day)	Status of Applicable4 Section 201 Programs (January 1980)
	Abbs Valley	WQ	Permit not needed at present			Not on priority list
	Austinville	EL	Permit not needed at present			Not on priority list
	Bastian	EL	Permit not needed at present			Continue to use septic tanks for present
1	Blacksburg	EL	6.0	544.8	544.8	Completed
	Bland	EL	Permit to be issued in future			Not on priority list
29	Bluefield	WQ	3.5	106	106	Near Completion
	Boissevain	WQ	Effluent treated at Pocahontas			Redesign to treat at Pocahontas underway
2	Christiansburg	WQ	2.0	113.5	113.5	Completed
3	Dublin	EL	.22	29.9/49.9	29.9/49.9	To be connected to Pepper's Ferry STP (Radford Cluster) in FY-80
	Elk Creek	EL	Permit not needed at present			Continue to use septic tanks
4	Fairlawn	EL	.26	47	47	To be connected to Pepper's Ferry STP (Radford Cluster)
	Falls Mills	WQ	.144	5.5	5.5	Step I approved; limits for new plant
	Flat Ridge	EL	Permit not needed at present			Not on priority list
*5	Floyd	EL	.1	59.0	45.4	Small community; Step IV
13	Fries	EL	.02	11.8	9.1	Step I approved
14			.16	94.5	72.7	
17	Galax	EL	1.5	170	170	Not on priority list
	Glen Lyn	EL	Permit not needed at present			Not on priority list

15	Hillsville	EL	.2	23	23	Step I to be approved soon
16			.15	17	17	
*18	Independence	EL	.2	22.7	22.7	Step I approved; selected alternative was for one plant
19			.1	11.4	11.4	
	Ivanhoe	EL	Permit not needed at present			Continue to use septic tanks
	Max Meadows	EL	Permit to be issued in future			Not on priority list
	Mechanicsburg	EL	Permit not needed at present			Not on priority list
6	Narrows	EL	0.60	354.0	272.0	Step I at EPA; Step II - FY-80
	Newport	EL	Permit not needed at present			Not on priority list
7	Pearisburg	EL	0.30	177.0	136.0	Step I at EPA; Step II - FY-80; Step III - FY-84
	Pembroke	EL	Permit not needed at present			Not on priority list
*30	Pocahontas	WQ	.15	17	17	Step I grant approved to correct I/I problems
8	Pulaski	EL	2.0	234/303	234	To be connected to Pepper's Ferry STP (Radford Cluster) in FY-80 (Step II)
9	Radford STP	EL	2.5	1475	925	Step II - FY-80
*10	Rich Creek	EL	.12	71	54	Step I at EPA, Step IV - FY-83
31	Riner	EL	.035	4.0	4.0	Completed
	Rocky Gap	EL	Permit not needed at present			Continue to use septic tanks for present
12	Rural Retreat	EL	0.15	37.5	37.5	Step I to be completed in FY-80
	Speedwell	EL	Permit not needed at present			Continue to use individual septic tanks for present

	Troutdale	EL	Permit not needed at present			Continue to use individual septic tanks for present
	Woodlawn	EL	Permit to be issued in future			Not on priority list
11	Wytheville	EL	20	400	200	Sewage treatment plant completed

1Discharges are shown on Plate 3.

2Effluent Limiting (E.L.) or Water Quality Limiting (WQ).

3For existing sewage treatment facility.

4For new sewage treatment facility.

*Small communities with combined Step II and III Grants.

TABLE B2- EFFLUENT LIMITS(1) (4) NEW RIVER BASIN

Discharge	Receiving Stream	Maximum BOD5 Loading Limits (kg/day)
Troutdale	Fox Creek	6.1
Independence	Peachbottom Creek	13.5
Fries	New River	50.5
Galax	Chestnut Creek	240.3
Hillsville	Little Reed Island Creek	99.6
Woodlawn	Crooked Creek	69.5
Speedwell	Cripple Creek	17.4
Austinville	New River	19.5
Rural Retreat	South Fork	50.5
Wytheville	Reed Creek	298.3
Max Meadows	Reed Creek	82.4
(3)Pulaski	Peak Creek	316.8
Floyd	Dodd Creek	24.1
Riner	Mill Creek	9.8
Blacksburg	New River	583.4
Christiansburg	Crab Creek	359.4
(3)Dublin-New River-Fairlawn-Radford-Plum Creek	New River	772.7

Newport	Sinking Creek	2.9
Pembroke	New River	28.4
Bland	Walker Creek	10.3
Mechanicsburg	Walker Creek	3.1
Narrows-Pearisburg	New River	110.8
Bastian	Wolf Creek	10.4
Rocky Gap	Wolf Creek	9.0
Rich Creek	Rich Creek	19.9
Glen Lyn	New River	5.7
Bluefield	Bluestone River	136.4
(2) Abbs Valley	Laurel Fork	11.4
(2) Pocahontas	Laurel Fork	5.5
(2) Boissevain	Laurel Fork	5.9

(1) Other effluent limitations will be determined by Water Quality Standards and/or Best Available Technology requirements.

(2) Secondary treatment will be required until a further verification of the model is made to document the need for treatment beyond secondary.

(3) To join Radford Cluster.

(4) This table supersedes Table 152, page 199, Thompson & Litton, Inc., New River Basin Comprehensive Water Resources Plan, Volume V-A.

TABLE B3- NEW RIVER BASIN INDUSTRIAL EFFLUENT LIMITATIONS*

Parameters in Average kg/day or (Concentration) as mg/l

FACILITY NUMBER

MAP NUMBER 20 APCO 004 401 501 006	BOD5 1.14	SS 382 1.14 318	OIL & GREASE 192 159	IRON (1.0) MAX	COPPER (1.0) MAX	
21 Burlington Industries 001	BOD5 346	SS 354	PHENOLS 1.7	SULFIDE 0.9	ALUMINUM 1.0	
22 Celanese Fibers Co. 002 003	FLOW (MGD) 2.8 3.5	BOD5 (30) 2,999	SS 2,023	COD 27,694		
23 Hercules, Inc. 001	SS 34					
24 Lynchburg Foundry 001	SS 143	OIL & GREASE 53.1	PHENOLS 1.04			
25 RAAP Combined Ind. 026	FLOW (MGD) 1.0	BOD5 114	SS 6,714 114	COD 237	OXIDIZED NITROGEN 18,697	SULFATE 565 67

26 New Jersey Zinc 001 002 003 004 005 006	BOD5 2.3	SS (38) (.30) (20) (30) (30) 2.3	TOTAL CYANIDE (0.02) (0.02) (0.25)	DISSOLVED LEAD (0.25) (0.25) (0.35) (1.0) (0.25) ------	DISSOLVED ZINC (1.0) (1.0) (1.0) (0.25) (1.0) ------	DISSOLVED IRON (0.3) (0.25) (0.25) (0.25) ------
27 Elk Creek Raycarl Products	SS (5)	OIL & GREASE (10)	IRON (1)	PHOSPHATE (2)	ZINC (0.5)	
28 Fields Mfg	BOD5 3.6	SS 4.1	OIL & GREASE 0.8	TEMP. 75°F		

Certified True and Accurate: _____

Robert G. Burnley, Director, DEQ

Date: _____

Certified True and Accurate: _____

Robert G. Burnley
Director, DEQ

Date: _____